

and brought to Bombay for sale. The birds were confiscated from him by Mr. Humayun Abdulali, an Honorary Game Warden, and ringed and released by him at Kalyan.

BOMBAY NATURAL HISTORY SOCIETY,
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EDITORS

6. THE GENUS *CUCULUS*: TWO AMENDMENTS TO THE 'HANDBOOK OF THE BIRDS OF INDIA AND PAKISTAN'

(With a text-figure)

The HANDBOOK OF THE BIRDS OF INDIA AND PAKISTAN, volume 3 (hereafter referred to as the HANDBOOK) lists under the heading Himalayan Cuckoo only the nominate subspecies *Cuculus s. saturatus*, 'probably resident' along the Himalayas and in the hills of northeastern India. 'Museum diagnosis' is based on 16 specimens from Nepal and Sikkim, which have a wing length range of 172-192 mm, within the limits of nominate *saturatus* as set by Junge (1937)¹. Figures of 208-226 mm quoted in the FAUNA OF BRITISH INDIA, volume 4 (Baker 1927) are rejected², but several specimens from the Indian subcontinent recently examined by the author in the collections of the British and Leiden Museums do not conform with Junge's definition and it is intended to show that treatment of the species in the HANDBOOK should be amended.

These collections include 58 post-juvenile and adult Himalayan Cuckoos collected along the Himalayas, from Hazara on the Pakistan-Afghanistan border east to Assam and Manipur, and two identifiably lowland specimens, an adult male taken on 18 May at Sholapur, Bombay State (17°43'N, 75°56'E) and an adult female on 31 May at Fatehgarh, either M.P. (24°47'N, 77°00'E) or U.P. (27°22'N, 79°38'E)³. Dated specimens occur only between 14 March and 20 October, with a conspicuous gap during the winter period which is hardly in accord with 'probably resident' status, though forest cuckoos are elusive outside the calling season (March-August according to the HANDBOOK) and problems of collecting during this period may account for lack of specimens.

¹ Figures of 179-194 mm derived from skins in the BNHS collection by Humayun Abdulali (1971 *in litt.*) are also within Junge's range for the nominate subspecies.

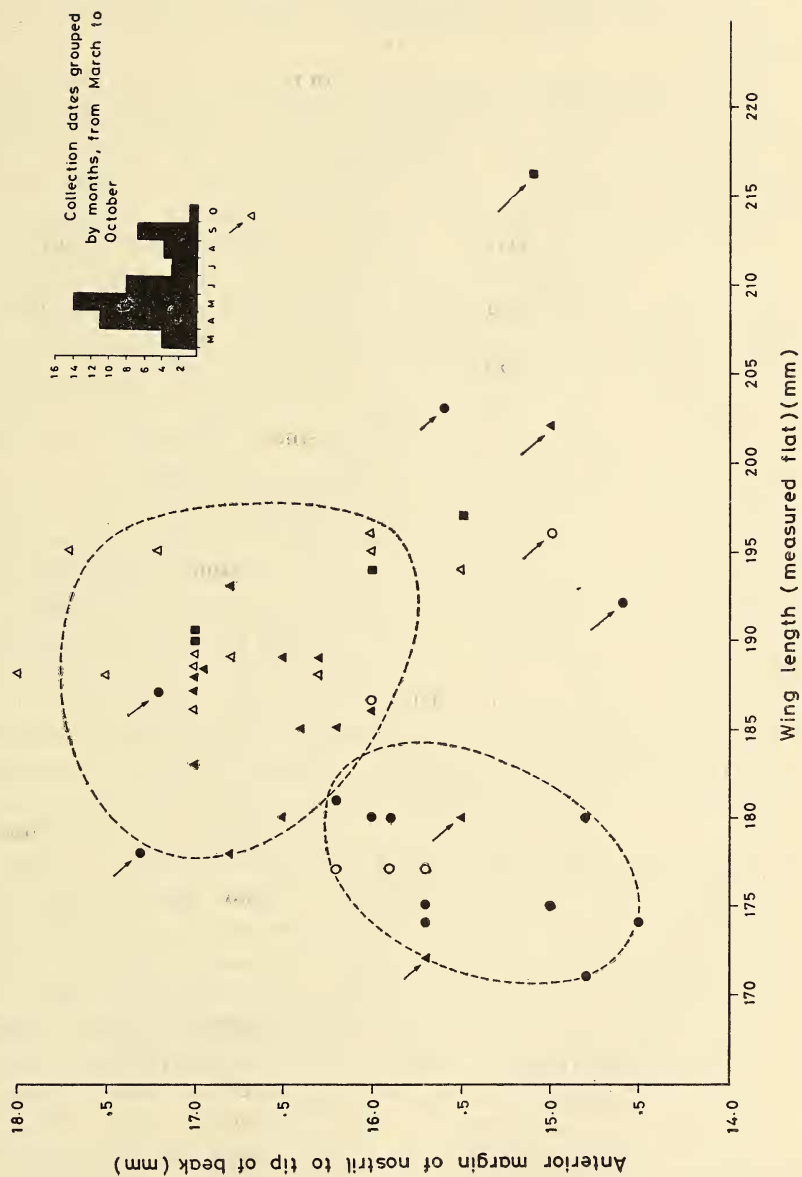
² Since the maximum authenticated wing length recorded for the Himalayan Cuckoo is only 217 mm (Dementiev & Gladkov 1951; Leiden Museum collection) it is possible that Baker confused his material with the Common Cuckoo *Cuculus canorus*.

³ The original labels read 'Sulapur' and 'Futtighur'. Sholapur and Fatehgarh were the only possible modern alternatives that could be found.

Baker (1927) and Ripley (1961) have suggested that dispersal away from the hills occurs after the breeding season but whatever the annual cycle of subcontinent breeding populations, grouping of the collection dates by month reveals a suspiciously bimodal distribution. Most records cluster into the period late March-early June, with a lesser resurgence in August-September. Of the 10 specimens labelled 'June' only 2 are known to have been collected in the second half of the month, and there are only 3 records for the whole of July. Of the 11 August-September birds, moreover, 7 are in adult plumage, which suggests that the second peak atleast may reflect passage migration rather than mere abundance at the end of a local breeding season. This interpretation is not inconsistent with recorded dates of arrival of spring migrants in western and central U.S.S.R., and arrival and departure periods in the known Southeast Asian and Australasian wintering range. Dementiev and Gladkov (1951) cite the following dates of first arrival in spring: 10-12 May in the central Urals, 29 May in the Altai, and early June on the lower Yenisei, near the arctic circle. Extreme dates among 132 specimens collected in the winter range, from the Andamans and Greater Sunda Islands east to New Guinea and Australia, are 'August' (Borneo) and 6 June (Ternate, Moluccas), although most records fall within the period late September-late March. It is also of interest to note that all except one of the specimens collected in the subcontinent during August-September are from Sikkim and Assam, that part of the region on the most direct route from the central Palaearctic to Southeast Asia and beyond.

Measurements were made of the flattened wings of all post-juveniles and adults, except those moulting the longest remex (primary VIII descending) or retaining small, juvenile remiges. This gave a wing length range of 180-216 mm for subcontinent males and 174-203 mm for females, reduced to 171 mm by the inclusion of 2 individuals from the BNHS collection, misidentified as *Cuculus poliocephalus* (see below). Thirteen specimens are larger than the upper limit of 192 mm quoted by the HANDBOOK for nominate *saturatus*, including 8 males wing 195-214 mm, 2 females wing 196 mm and 203 mm, and 3 unsexed birds wing 193, 194 and 216 mm. Four of these are beyond the absolute upper limit of 197 mm set by Junge for the nominate subspecies and well within the range he quoted for the northern breeding *horsfieldi*, which is not included in the HANDBOOK. It should be pointed out, however, that the two subspecies have a continuous north-south distribution at least in the far-eastern part of the breeding range and merge over a wider size range than the 5 mm that Junge proposed. He cited 192 mm as an absolute lower limit for the wing of *horsfieldi*, breeding across the U.S.S.R., in Japan and northern China south (Cheng 1964) to about the latitude of Kiangsu. But the British Museum possesses a male from the Shantung

Two morphological variables in 50 specimens of Cuculus saturatus from the Indian subcontinent



KEY: $\Delta\Delta$ males; $\circ\circ$ females; $\square\square$ unsexed specimens. Solid figures represent specimens collected from Nepal eastwards, open figures specimens from Naini Tal and Gilgit westwards.

peninsula with a wing of only 185 mm, a female from northern Manchuria wing 186 mm and 3 females from the Yenesei, central Siberia, wings 182, 190 and 190 mm. It is noteworthy also that Kobayashi (1967) quotes a lower limit of 184 mm for Japan, while Dementiev and Gladkov go to 175 mm for the U.S.S.R., although they do not give the source of their information.

To investigate the homogeneity of the Indian subcontinent sample, wing lengths were thus plotted against a second parameter, the distance from the anterior margin of the nostril to the tip of the beak. This measurement was selected because it is relatively easy to make in a dried skin and also because beak size varies from population to population, apparently independent of total body size as indicated by wing length. The scatter of points resolved itself into 2 major clusters (see diagram). Males centred on a beak length of about 16.0-17.5 mm (the western Himalayan sample skewed towards the upper end of the range, the eastern towards the lower) and a wing length of about 180-195 mm (no western birds under 185 mm). Females centred on a beak length of about 14.5-16.0 mm and a wing length of about 173-180 mm (the two sub-groups in this second cluster are not geographically separable).

Having proposed the possibility of migrants occurring until early June and from August onwards it was impossible to select as a standard of reference an adequate sample of guaranteed local breeding birds since so few specimens were available for late June or July. But since the centre groupings of both main clusters included birds collected in April, May and June there is reasonable likelihood that at least some local breeders were incorporated (the HANDBOOK gives May-June as the principal breeding season). The size limits of local breeders obviously cannot be defined on present data but rough limits of the centre groupings of each cluster have been sketched in by eye, thereby isolating the more extreme deviants (marked by arrows in the diagram). A few of these can be eliminated immediately as probable errors of labelling. 'Males', wing 172 mm, beak 15.7 mm (Sikkim, 27 May) and wing 180 mm, beak 15.5 mm. (Nepal, no date) are so close to the centre groupings for females that they probably belong there. Conversely, 'females', wing 178 mm, beak 17.3 mm (Assam, 29 August) and wing 187 mm, beak 17.2 mm (Fatehgarh, 31 May) are both far from their appropriate centre grouping but close to that of males. It will be noted, however, that by its locality the Fatehgarh bird must be a migrant, or at least a dispersant.

Six other plots are distinctive: including males, wing 203 mm, beak 15.0 mm (Shillong, Assam, 15 August), well above the wing range but below the beak range of the centre grouping, and wing 214 mm, beak 16.7 mm (Sholapur, Bombay, 18 May), and a third, unsexed, bird wing 216 mm, beak 15.1 mm (Assam, no date) which is also far above the wing range of either centre grouping. By its size it can only be a

male. Three individuals sexed as females, wings 192, 196 and 203 mm, beaks 14.6, 15.0 and 15.6 mm, respectively, from Assam (4 September), Muree hills, West Pakistan (25 May), Shillong, Assam ('May') are well out of the female centre grouping on wing length and even if wrongly sexed are too short in the beak to fit comfortably into the male centre grouping. Collection dates for 5 of the 6 fall within putative migration periods and the only undated specimen happens also to be the most extreme deviant on size. These individuals are, thus, sufficiently distinct to establish with fair certainty that migrants from elsewhere in the species breeding range do occur in the subcontinent. Their wing lengths place them well with the range of the northern breeding *horsfieldi*, which should be added to the Indian list, but no guesses can be made as to whether all migrants passing through India belong to this subspecies.

The second proposed amendment concerns the Little Cuckoo *Cuculus poliocephalus*. The HANDBOOK follows Baker (1927) in quoting an upper limit of 171 mm for wing length but states that this measurement is exceptional, 9 mm above the 'normal' maximum. The only beak measurement given is length from skull but among a large number of specimens of supposed *C. p. poliocephalus* in the British and Leiden Museum collections, 2 categories could be recognised on beak morphology. The vast majority of individuals had slender beaks, length from the anterior margin of the nostril to the tip as follows: 10 migrants from East Africa and the Seychelles 13.0-14.6 mm; 5 presumed migrants from Ceylon 13.2-14.5 mm; 38 birds from the Indian subcontinent 12.0¹-15.1 mm; 2 from Burma 14.0 and 14.9 mm; 23 from China 13.1-15.1 mm, and 9 from Japan 13.7-14.9 mm. Wing lengths of this group fell within the range 143 mm-161 mm, with 3 adults from Japan, Kiangsu and Yunnan wing 164 mm and one from Mt. Victoria, central Burma wing 167 mm. The sample from the Indian subcontinent had a wing range of 143-160 mm.

Two individuals in the British Museum from Sikkim and Darjeeling had distinctly deeper and heavier bills, length 15.0 and 18.0 mm, and wings of 174 and 175 mm. A similar bird, beak 16.5 mm, wing 168 mm, was also found among *C. p. lepidus* in the Bartels collection from western Java (Leiden Museum). No difference could be found between the shape of the beak in these birds and that of a large series of nominate *C. saturatus*, which also contained a number of specimens identical to the

¹ This measurement is from an unsexed adult labelled Sikkim. All juveniles have been excluded from the series investigated since they have much smaller beaks than adults, the beak in some individuals not reaching full size until after the post-juvenile moult. The same is true of *Cuculus saturatus* and the small beak is presumably an adaptation to being fed as pulli and fledglings on small insects by relatively tiny foster-parents.

individuals in question in every other respect. In fact, when comparing large series no consistent plumage character could be found that reliably separated *saturatus* and *poliocephalus*. It was, therefore, concluded that these 3 birds had been wrongly identified and were really *saturatus*. Interestingly, the Javan specimen had the name 'optatus' (a synonym of *saturatus saturatus*), apparently in Junge's handwriting, pencilled in on the collector's label.

Recently, the author has also been able to go through *C. poliocephalus* in the BNHS collection at Hornbill House. Two specimens (cat. nos. 10627, 10636) stood out from the rest, with wing lengths of 171 and 172 mm in a series which otherwise did not exceed 160 mm (my measurements of flattened wings). They had rather short beaks, length from the anterior margin of the nostril 14.8 and 15.7 mm, but these measurements are within the range of undoubted nominate *saturatus* and in both birds the beak was of the heavy, *saturatus* type. Abdulali (1971 *in litt.*) has subsequently pointed out that they have tails of only 130 mm, short for subcontinent *saturatus* available to him, but the measurement is still within the accepted range for the species. Kobayashi (1967), in fact, quotes a range down to 124 mm for Japanese *saturatus* of wing not less than 184 mm.

These birds are very similar to the 3 London and Leiden specimens and have been re-identified as nominate *saturatus*. They both still carry E. C. S. Baker's original (field ?) labels, reading *C. poliocephalus*, Sikkim 27 May 1904, and there are grounds for supposing that these are the specimens used by him to define the upper limit of wing length of his *C. poliocephalus* as 171 mm in the FAUNA, volume 4 (the difference of 1 mm between this figure and that quoted above can be dismissed as a personal variation in measuring technique). It is suggested that this figure should now be deleted from the HANDBOOK's treatment of the Little Cuckoo and that the upper limit of wing length for *C. poliocephalus* collected in India be reduced to 162 mm.

In reviewing records of putative migrant *C. p. poliocephalus* in South-east Asia it has become evident that some (and possibly all) are due to misidentification of small nominate *saturatus*, presumably based on Baker's figures, which have been widely copied. In fact, there is growing doubt as to whether *C. p. poliocephalus* occurs at all in Southeast Asia away from the higher hills of northern and central Burma. If it is established that its migration pathway is entirely southwestwards, to East Africa, then the usual supposition that *C. 'p'. lepidus*, resident in Malaysia and Indonesia, is a subspecies of the Little Cuckoo is called to question (Becking in prep. ; Wells in prep.).

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the Bombay Natural History Society for facilities to study the Society's collections.

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7. OCCURRENCE OF THE EGYPTIAN NIGHTJAR *CAPRIMULGUS AEGYPTIUS AEGYPTIUS* LICHTENSTEIN IN BALUCHISTAN

The Egyptian Nightjar (*Caprimulgus aegyptius aegyptius* Lichtenstein) is not included in Stuart Baker's FAUNA or in Sálim Ali and Ripley's INDIAN HANDBOOK. While cataloguing the nightjars it was noticed that though C. B. Ticehurst (1927) in *The Birds of British Baluchistan* (JBNHS 31: 880) referred to *C. aegyptius* not occurring nearer than Bampur in Persian Baluchistan, Peter's Checklist (1940, 4: 205) refers to its occurrence in 'Baluchistan'. A little later (1942) Major General A. P. F. Christison in *Some Additional Notes on the Distribution of the Avifauna of Northern Baluchistan* (JBNHS 43: 483) refers to a specimen obtained at Rabat on the Afghanistan-Iran-Baluchistan frontier on 12 April and seeing another. He adds 'Natives know it well and say it comes to nest there, but I could find no one who had seen its eggs'.

His specimen, a male, had a 208 mm wing, which is larger than *C. europaeus unwini* (172-192 mm) and *mahrattensis* (157-173 mm) which would be the only species with which it could be confused. It would also appear that the collection was checked upon by C. B. Ticehurst, and there is no reason to question this record. Its omission in